

DERWENT-ACC-NO: **1977-57563Y**

DERWENT-WEEK: 198619

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TITLE: Sintering belt for iron ore using controlled
ignition gas pressure and temp. to improve thermal
efficiency

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PRIORITY-DATA: 1976FR-010535 (April 9, 1976)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
BE 853434 A	August 1, 1977	FR
DE 2715423 A	October 20, 1977	DE
FR 2347445 A	December 9, 1977	FR
ZA 7701758 A	January 20, 1978	EN
<u>GB 1574647</u> A	September 10, 1980	EN
IT 1082489 B	May 21, 1985	IT
DE 2715423 C	April 30, 1986	DE

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
DE 2715423A	N/A	1977DE-2715423
April 6, 1977		
DE 2715423C	N/A	1977DE-2715423
April 6, 1977		

INT-CL-CURRENT:

TYPE	IPC	DATE
CIPS	C22B1/20	20060101

ABSTRACTED-PUB-NO: BE 853434 A

BASIC-ABSTRACT:

A mixt. of ore and solid fuel is ignited on a sintering belt, where hot gas is drawn downwards through the mixt. from burners located in an ignition hood under which the mixt. travels at constant speed. The gas flow is adjusted so

its pressure (P1) under the hood is slightly above the ambient press, taking into account the thickness of the bed and the suction applied below the bed. The burners are fed with gas or liq. fuel and an oxidant contg. O₂, e.g. air, so the ignition gas is at 1250-1500 degrees C.

The total flow of gas is subdivided to suit the permeability of each transverse layer in the bed so that P1 remains constant, and the partial streams of gas have a progressively reducing flow from the inlet end of the hood to its outlet end. The length of the hood is designed so each transverse layer of the bed is subjected to an ignition time of 30-200 seconds, pref. 50-70 seconds and esp. 60 seconds. The pref. plant consists of a sintering belt using chains to carry the charge along the track.

Used esp. in the agglomeration of fine ore. Increased thermal efficiency is obtd. so fuel consumption is reduced by over 20 therms per tonne of agglomerate.

TITLE-TERMS: SINTER BELT IRON ORE CONTROL IGNITION GAS PRESSURE
TEMPERATURE

IMPROVE THERMAL EFFICIENCY

DERWENT-CLASS: M24 Q73 Q77

CPI-CODES: M24-A01; M25-A02;